

CLAIMS

1. A gasket for a pipe joint between two pipe ends, the gasket comprising:
a sealing portion for producing a seal between the two pipe ends and
5 a gripping portion for gripping at least one of the pipe ends to hold the
gasket in position,
characterised in that the sealing portion and the gripping portion are
manufactured in one piece from engineering plastics material.
- 10 2. A gasket as claimed in claim 1, wherein the gripping portion is configured to
self-center the gasket about a pipe bore.
3. A gasket as claimed in claim 1 or claim 2, wherein the gripping portion
comprises at least two resilient structures defining bearing surfaces for gripping a
15 pipe end.
4. A gasket as claimed in any one of claims 1 to 3, wherein the gripping
portion includes two T-shaped resilient structures.
- 20 5. A gasket as claimed in claim 4, wherein the T-shaped resilient structures
are spaced by approximately 180° or 120° about the gasket.
6. A gasket as claimed in any one of claims 1 to 5, wherein the gripping
portion includes four or six arms spaced about the circumference of the gasket,
25 each arm including a bearing surface for gripping a pipe end.
7. A gasket as claimed in any one of claims 1 to 6, further comprising means
for applying a pre-stress to the gripping portion so that the gripping portion applies
a greater gripping force during use.
- 30 8. A gasket as claimed in claim 7, wherein the means for applying a pre-stress
comprises at least one member held between the sealing portion and the gripping
portion.

9. A gasket as claimed in claim 8, wherein the or each member is positioned by means of lugs formed as part of the gasket.
- 5 10. A gasket as claimed in claim 9, wherein the lugs are offset on both sides of the or each member.
11. A gasket as claimed in any one of claims 8 to 10, wherein the or each member is manufactured from metal and acts as a stop between the pipe ends
10 during use.
12. A gasket as claimed in any one of claims 8 to 11, wherein the or each member is a metal wire.
- 15 13. A gasket as claimed in any one of claims 8 to 12, wherein the member extends through an arc of more than 270°.
14. A gasket as claimed in any preceding claim, further comprising:
locating means comprising a plurality of protrusions spaced about the
20 gasket for positioning the gasket relative to the pipe ends.
15. A gasket as claimed in claim 14, wherein the sealing portion and the locating means are formed integrally.
- 25 16. A gasket as claimed in claim 14 or claim 15, wherein the locating means are configured to self-center the gasket about a pipe bore.
17. A gasket as claimed in any one of claims 14 to 16, wherein the locating means comprise at least three protrusions defining bearing surfaces for seating in
30 an annular recess in a pipe end.
18. A gasket as claimed in any one of claims 14 to 17, wherein the locating means include ten or more protrusions.

19. A gasket as claimed any one of claims 14 to 18, wherein the protrusions are bumps, truncated cones or stipples.
- 5 20. A gasket as claimed in any one of claims 14 to 19, wherein the protrusions have flat tops.
21. A gasket as claimed in any one of claims 14 to 20, wherein the protrusions extend from both sides of the gasket.
- 10 22. A gasket as claimed in any one of claims 14 to 21, wherein each protrusion is substantially round in plan.
23. A gasket as claimed in any one of claims 14 to 22, wherein each
15 protrusion is substantially the same.
24. A gasket as claimed in any preceding claim, wherein the engineering plastics material is PEEK or ULTEM.
- 20 25. A gasket as claimed in any preceding claim, wherein the sealing portion comprises a bore surface for alignment parallel with a pipe bore and an adjacent raised surface perpendicular to the bore for forming a seal between pipe ends.
26. A pipe joint comprising two pipe ends defined by ferrules, a clamp acting on
25 the ferrules to close the joint and a gasket according to any preceding claim between the ferrules.
27. A pipe joint as claimed in claim 26, wherein each ferrule includes an annular recess for receiving protrusions of the locating means.
- 30 28. A pipe joint as claimed in claim 26 or claim 27, wherein the gasket includes a metal stop against which the ferrules bear to prevent overtightening of the clamp.

29. A pipe joint as claimed in claim 28, wherein the ferrules contact the sealing portion of the gasket before the stop, during clamping, thereby resulting in a sealing pressure being applied to the gasket.

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30. A pipe joint as claimed in any one of claims 26 to 29, wherein resiliency of the ferrules is utilised to apply a continual pressure between the ferrules and the sealing portion of the gasket following clamping.